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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,827	04/27/2001	David C. Mitchell	368B	2535

7590

03/10/2003

CIENA Corporation  
Legal Department  
1201 Winterson Rd.  
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EXAMINER

PAK, SUNG H

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 03/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/844,827

Applicant(s)

MITCHELL ET AL.

Examiner

Sung H. Pak

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

In response to the amendment filed 12/20/2002, all the changes to the specification have been entered. Claims 1-15 are pending. Applicants' arguments regarding the patentability of pending claims have been carefully reviewed by the examiner, however they are not deemed convincing. Please refer to Remarks for details.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Schroeder, Jr. (US 4,046,298) as discussed in the prior office action.

Regarding claims 1, 4-5, Schroeder, Jr. discloses a method of tensioning an optical fiber ribbon cable with all the limitations set forth in the claims, including: securing a first portion and second portion of the optical fiber to first and second supports (Fig. 10); creating a moment arm with second support to uniformly and repeatably tension and position the optical fiber for stripping (Fig. 3,4 and column 3 line 62- column 4 line19 ).

Regarding claim 2, the reference does not explicitly state that the second support rotates due to it's own weight. However, such limitation is inherently disclosed by the

Art Unit: 2874

reference, because the combined weight of the second support component ("31", "29", and "32" in Fig. 3) would inherently pull the optical fiber in a clockwise direction.

Regarding claim 3, the knob ("25" in Fig. 4) is rotated until the stop element "26" abuts against the leg element "22" prior to tensioning the optical fiber.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill et al (US 5,216,739) in view of Schroeder, Jr. (US 4,046,298) as discussed in the prior office action.

Hill et al discloses a method for forming a refractive-index grating in a fiber optic cable, including: Regarding claims 11-12, securing first and second portions of the fiber in a first support "4" and a second support "6" (Fig. 1); creating a gravity-assisted pull with weights (Fig. 1); impressing laser induced optical gratings on the fiber (column 3 lines 55-60). Regarding claim 8, although the reference discloses a UV induced grating, laser etched grating is commonly used in the art, and it is considered an obvious variation (for example, US 6,087,655). Laser etching is preferred because it takes considerably less time to induce gratings in the fiber.

Nonetheless, Hill et al does not teach the use of a gravity assisted moment arm for creating tension in the optical fibers. Schroeder, Jr., on the other hand, teaches the method of tensioning optical fibers with gravity assisted moment arm, as discussed above and especially recited in claims 9-10. Such configuration is advantageous because it allows for reliable tensioning of the optical fiber without attaching the weight directly onto the fiber. Attaching the weight directly onto the fiber may undesirably damage the fiber. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Hill et al device to use gravity assisted moment arm as taught in Schroeder, Jr.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Novack et al (US 6,272,886 B1) in view of Schroeder, Jr. (US 4,046,298) as discussed in the prior office action.

Art Unit: 2874

Novack discloses a method of calibrating a fiber optic cable, including: securing first and second portion of the optical fiber to first and second support (column 3 lines 58-66); measuring the diffraction grating during the tensioning and the writing stages of the optical grating so that the grating magnitude and quality may be monitored (column 3 line 66- column 4 line 5).

However, Novack et al does not teach the use of gravity assisted moment arm for providing tension on the fiber. Gravity assisted moment arm is not a novel or patentable feature, and it is disclosed in the prior art, Schroeder, Jr. As discussed above, Schroeder, Jr. provides simple and reliable way of providing tension without damaging the optical fiber. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Novack et al to use gravity assisted moment arm as taught in Schroeder, Jr.

### ***Remarks***

Starting on page 3 of the applicants' response, it is argued that that the stripping wheel must be rotated clockwise via a knob, and that it does not rotate under its own weight. While the applicants are right that the stripping wheel (24) must be rotated via a knob (25) with enough force so that enough force can be applied to remove the fiber coating, the examiner respectfully points out that the Schroeder device, nevertheless, does apply tension to the loaded fiber via "gravity-assisted moment arm" *prior* to the turning of the knob.

As discussed in the specification of the Schroeder reference, the U-shaped wheel clamp 29 is affixed to the stripping wheel via screws (30-30). The weight of the elements (31, 29, 32) would inherently pull the wheel clamp and the stripping wheel in clockwise direction as shown in Fig. 4, although this force is not enough to actually strip the fiber coating. During the operation of the device, the fiber would be in tension prior to turning of the knob that actually strips the fiber coating.

Starting on page 4 of the applicants' response, it is argued that even if we assume that the stripping wheel turns due to its own weight, it must rotate counter-clockwise, because if it were otherwise "the stop pin (26) would not function correctly." The examiner respectfully argues that this is not a correct characterization of the Schroeder device. As applicants pointed out in pages 3-4 of the response, the knob (25) must be turned counter-clockwise in order to put the stripping wheel in the initial position and load the optical fiber into the device. The stopping wheel acts to stop the stripping wheel from turning excessively beyond the initial position. If the operator turns the wheel excessively the U-shaped wheel clamp (29) and the securing screw (31) would hit the scoring assembly (34). The stop pin (26) prevents this from happening, and it does not infer that the stripping wheel turns on its own weight counter-clockwise.

Starting on the bottom of page 4 through page 6 of the response, the applicants argue that claims 1-15 are patentable because Schroeder device fails to disclose gravity-assisted moment arm tensioning the fiber optic cable. However, Schroeder device does disclose gravity-assisted moment arm tensioning the fiber as discussed above, and the claim rejections are proper.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sung H. Pak whose telephone number is (703) 308-4880. The examiner can normally be reached on Monday - Thursday : 6:30am-5:00pm.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.



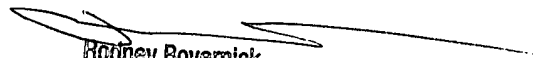
Art Unit: 2874

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Sung H. Pak  
Examiner  
Art Unit 2874

sp  
March 3, 2003



Rodney Bovernick  
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